



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,690	07/22/2003	Kazuya Shibayama	051841-0108	5331
22428	7590	10/03/2005	EXAMINER	
FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			KRAUSE, JUSTIN MITCHELL	
			ART UNIT	PAPER NUMBER
			3682	

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/623,690

Applicant(s)

SHIBAYAMA, KAZUYA

Examiner

Justin Krause

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-14 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 22 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/22/03, 11/4/04.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.



DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statements filed July 22, 2003 and November 4, 2004 have been considered during examination.

Drawings

2. The drawings filed July 22, 2003 have been reviewed and are accepted as formal.

Specification

3. The disclosure is objected to because of the following informalities: Page 5 line 1 numbers the vehicle body (100) as reference number 10.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4 and 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Lüthi et al. (US Patent 5,802,221).

Lüthi shows a steering column for a vehicle having a steering jacket, punched and bent into a substantially U-shaped cross section (1) that surrounds a steering shaft (15). The opening of the U-shape faces downward. Brackets (14) are mounted on the upper and lower ends of the column jacket and upper and lower bearings (13) are fitted and fixed into the brackets to rotatably support the steering shaft. Each of the upper and lower brackets has a cylindrical portion through which the steering shaft passes defining a recess around the cylindrical portion. The column jacket has protrusions (17) formed on the upper and lower ends to be engaged in and attached to the recesses (16) of the upper and lower brackets. The method of assembly specified by Lüthi is riveting that may be re-enforced with spot-welding. While no method of manufacture is provided for the brackets, the method by which a device is made is given minimal patentable weight within a device claim.

"Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." (MPEP 2113 R-1)

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5, 6, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lüthi in view of Higashino (US Patent 5,845,936).

Lüthi shows the claimed subject matter as described above.

Lüthi does not show a column jacket having the side walls of the column jacket having a pair of opposed through holes and slots formed therein, and the steering column further comprising: a fixed bracket mounted on the column jacket and having a pair of opposed clamping walls to clamp the side walls therebetween, the clamping walls having a pair of vertically elongated tilt holes formed therein at positions corresponding to the through holes of the side walls, a bolt passing through the through holes of the side walls and the tilt holes of the clamping walls, the bolt being movable through the tilt holes such that the column jacket is tilted together with the steering shaft; a nut fitted onto the bolt to cause the clamping walls to clamp the sidewalls therebetween and thereby lock the steering shaft at a desired tilt position; and a reinforcing plate having protrusions engaged in the slots, respectively, to be held between the side walls of the column jacket; A column jacket that has flanges to which

a key cylinder is attached, and the flanges are integrally formed by bending the respective sidewalls.

Regarding claims 5 and 12, Higashino shows a steering jacket (8a) having a through hole (18) formed within. The steering column further comprises a fixed bracket (11) mounted on the column jacket having opposing clamping walls having vertically slotted tilt holes formed a position corresponding to the through hole. A bolt (13) passes through the holes and is movable in the tilt holes such that the column jacket tilts with the steering shaft. A nut (19) is fitted on to the bolt to cause clamping walls to clamp the sidewalls and lock the steering shaft at a desired position. The reinforcing plate is integrated into the column jacket, which is a solid body across the gap between the opposing sidewalls of the side bracket. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Lüthi by adding the steering tilt mechanism as taught by Higashino. The motivation would have been allowing the steering column to be adjusted to accommodate drivers of all sizes in a comfortable manner.

Regarding claims 6 and 13, the column jacket has a cylindrical flange (10) integrated into the column jacket sidewalls to facilitate the mounting of a key cylinder into the column. Mention is not made as to how the column jacket sidewalls are manufactured in order to facilitate the mounting of the key cylinder, however patentability of the device is not dependent upon the method with which it is made. (see MPEP 2113 R-1)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Lüthi and add a flanges for a key cylinder as taught by Higashino. The motivation would have been that a key cylinder mounted on the steering column is well known within the art and it provides the ability for the steering column to be locked in place when the key is not engaged in the cylinder.

8. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lüthi as modified by Higashino as applied to claims 5, 6, 12 and 13 above, and further in view of Yamamura et al. (US 2002/0089161).

Lüthi as modified Higashino shows claimed subject matter as described above. The steering column of Higashino does show a combination switch mounting bracket (9) and a mounting portion (25) integrally formed on the fixed bracket (11) previously modified into the steering column of Lüthi, however it is unclear if there is a mounting portion on a lower bracket for fixing the steering column to a vehicle body.

Yamamura shows a steering column having a fixed bracket (6) having an integrally formed mounting position and a lower bracket (7) with an integrally formed mounting position for mounting the steering column to a vehicle body.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Lüthi with the combination switch bracket of Higashino. The motivation would have been the steering jacket provides a

strong and solid mounting location for attaching the combination switch to the steering column assembly.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Lüthi as modified by Higashino with the lower bracket as taught by Yamamura. The motivation would have been addition of a second mounting point would increase the stability of the steering column within the vehicle.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 2003/0154815 shows a U-shaped steering column jacket

5,802,926 shows a U shaped steering column with tilt adjustment

5,199,319 shows a steering column tilt adjustment device

5,605,351 shows a steering column tilt adjustment device

6,170,873 shows a U-shaped steering column jacket

DE 3521644 C1 appears to show a U-shaped steering column jacket


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Krause whose telephone number is 571-272-3012. The examiner can normally be reached on Monday - Friday, 7:30-5:30.

Art Unit: 3682

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JHK
9/28/05


WILLIAM C. JOYCE
PRIMARY EXAMINER